CLAIMS

We claim:

1. In a toy including a first member and a second member adjoining the first member, the first and second members being rotatable relative to one another about an axis extending through the first and second members, and a controller at least monitoring relative angular position of the first and second rotary members with respect to one another, a rotary feedback mechanism comprising:

a first set of at least three separate electrically conductive pads non-rotatably mounted to the first member around the axis at least proximal to the second member;

a wiper non-rotatably mounted to the second member abutting the first set of conductive pads so as to sequentially contact at least some of the first plurality of conductive pads with rotation of the first and second members with respect to one another;

a signal commonly provided by the wiper to each of the at least three conductive pads in sequence with rotation of the first and second members with respect to one another;

an individual signal conductor from each of the at least three conductive pads of the first plurality to the controller to provide the controller with one or more of a plurality of the commonly provided signals from each of the separate conductive pads contacted by the wiper, the controller associating each signal of the plurality of signals with an individual electric pad to identify each particular pad being contacted by the wiper at any given time such that relative angular position of the first and second members with respect to one another is determined by the controller from the commonly provided signals fed back to the controller by each particular conductive pad of the plurality.

2. In the toy of claim 1, the rotary feedback mechanism further comprising a separate supply contact on the first member abutting the second member and the wiper and carrying the commonly supplied signal and wherein the wiper includes a plurality of separated, individual fingers electrically connected to one another, at least one finger being located to touch the supply contact on the first member to receive the commonly supplied signal and at least a second finger of the wiper positioned to contact being in sequence, at least some of the first plurality of electrically conductive pads to supply the common signal to each contacted pad.

3. The toy of claim 1 further comprising a steering mechanism having a rotary component, wherein the rotary feedback mechanism is operatively coupled to the rotary component to provide an indication to the controller of an angular position of the rotary component.

5